

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the signal change detection unit includes a coil for generating an induction voltage in accordance with a magnetic field generated from a current flowing through the part.

3. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the signal change detection unit includes an impedance component for generating electrical potential information in accordance with a change of a signal flowing through the wire.

4. (Currently Amended) A circuit board inspection device for inspecting operation of a circuit board having a predetermined part or wire formed therein, comprising:
a supporting substrate disposed substantially in parallel with a parts mounting
surface of the circuit board, the supporting substrate being near the circuit board at least
when in use; and

a signal change detection unit disposed in a position of the supporting
substrate directly opposite to the part or wire of the circuit board, with the supporting
substrate being disposed substantially in parallel with the circuit board.
The circuit board
inspection device according to Claim 1, wherein the supporting substrate is made of a thin
substrate having flexibility.

5. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the supporting substrate has substantially the same dimensions as the circuit board.

6. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein a hole for avoiding the supporting substrate to come into contact with the predetermined part of the circuit board is formed in a position of the supporting substrate corresponding to the part, with the supporting substrate being disposed substantially in parallel with the circuit board.

7. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the supporting substrate is provided to be assemblable into a box, and the supporting substrate assembled into a box is disposed substantially in parallel with the circuit board.

8. (Original) The circuit board inspection device according to Claim 2, wherein the coil is wound around the supporting substrate correspondingly to an outer circumference of the circuit board.

9. (Original) The circuit board inspection device according to Claim 2, wherein the coil is wound around the supporting substrate correspondingly to an outer circumference of the part.

10. (Original) The circuit board inspection device according to Claim 2, wherein the coil is wound around the supporting substrate correspondingly to a position of a terminal of the part.

11. (Original) The circuit board inspection device according to Claim 2, wherein the coil is wound around the supporting substrate correspondingly to a position of an input/output connector of the circuit board.

12. (Original) The circuit board inspection device according to Claim 2, wherein there are a plurality of the circuit boards, and the coil is wound around the supporting substrate correspondingly to a position of a cable connecting the circuit boards.

13. (Original) The circuit board inspection device according to Claim 2, wherein the coil is wound around the supporting substrate correspondingly to an outer circumference of a circuit board group in which a plurality of the circuit boards are connected.

14. (Original) The circuit board inspection device according to Claim 3, wherein the impedance component is made of a capacitive component.

15. (Original) The circuit board inspection device according to Claim 3, wherein the impedance component is made of an inductive component.

16. (Original) The circuit board inspection device according to Claim 3, wherein the impedance component is made of a resistive component.

17. (Original) The circuit board inspection device according to Claim 3, wherein the impedance component is disposed on the supporting substrate so as to substantially cross a direction of the wire of the circuit board at right angles.

18. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the signal change detection unit is disposed astride a plurality of layers of the support substrate.

19. (Original) The circuit board inspection device according to Claim 2, wherein the coil is formed with an equal number of turns for each of a plurality of layers of the supporting substrate.

20. (Original) The circuit board inspection device according to Claim 14, wherein the capacitive component is made of electrodes provided in two of a plurality of layers of the supporting substrate.

21. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein a plurality of the signal change detection units are provided, and one-side terminals of the signal change detection units are connected in common.

22. (Original) The circuit board inspection device according to Claim 21, wherein a common terminal in which the one-side terminals of the signal change detection units are connected in common is grounded outside the supporting substrate.

23. (Original) The circuit board inspection device according to Claim 21, wherein the one-side terminals of the signal change detection units are connected in common in an end portion of the supporting substrate.

24. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein a plurality of the signal change detection units are provided, and terminals of the signal change detection units are led into the supporting substrate closely to one another and substantially in parallel with one another.

25. (Withdrawn - Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the supporting substrate comprises a front-side supporting substrate disposed on a front side of the circuit board, and a back-side supporting substrate disposed on a back side of the circuit board;

the front-side supporting substrate is provided with the signal change detection unit in a position corresponding to a part or a wire mounted on the front side of the circuit board; and

the back-side supporting substrate is provided with the signal change detection unit in a position corresponding to a part or a wire mounted on the back side of the circuit board.

26. (Withdrawn - Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the supporting substrate comprises a front-side supporting substrate disposed on a front side of the circuit board, and a back-side supporting substrate disposed on a back side of the circuit board; and

the signal change detection unit is formed astride both the front-side supporting substrate and the back-side supporting substrate.

27. (Withdrawn - Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, wherein the supporting substrate comprises a front-side supporting substrate disposed on a front side of the circuit board, and a back-side supporting substrate disposed on a back side of the circuit board; and

the front-side supporting substrate and the back-side supporting substrate are formed integrally.

28. (Withdrawn) The circuit board inspection device according to Claim 26, wherein the signal detection unit is provided only one of the front-side supporting substrate and the back-side supporting substrate correspondingly to a side of the circuit board on which the part or wire to be inspected is disposed.

29. (Withdrawn) The circuit board inspection device according to Claim 27, wherein the signal detection unit is provided only one of the front-side supporting substrate and the back-side supporting substrate correspondingly to a side of the circuit board on which the part or wire to be inspected is disposed.

30. (Currently Amended) The circuit board inspection device according to Claim 4, Claim 1, further comprising:

a signal check portion for comparing a signal detected by the signal change detection unit with a normal signal stored in advance; and

a diagnosis portion for performing diagnosis as to whether the portion to be inspected operates normally or not, based on a comparison result of the signal check portion.

31. (Original) The circuit board inspection device according to Claim 30, wherein the signal check portion and/or the diagnosis portion are provided on the supporting substrate.

32. (Original) The circuit board inspection device according to Claim 30, wherein the signal check portion and the diagnosis portion are provided outside the supporting substrate.

33. - 46. (Canceled)